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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,111	07/12/2004	Ali Louzir	PF020001	5625

7590 10/06/2005

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EXAMINER

ALEMU, EPHREM

ART UNIT PAPER NUMBER

2821

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

W.A

Office Action Summary	Application No. 10/501,111	Applicant(s) LOUZIR ET AL.	
	Examiner Ephrem Alemu	Art Unit 2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4 and 8-11 is/are rejected.
- 7) ☐ Claim(s) 3,5-7 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7-12-04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. New corrected drawings are required in this application since the drawings filed 6-10-03 are objected to because lines, number & letters not uniformly thick and well defined, clean, durable, and black (poor line quality) in figures 4, 5, 6, 9 and 10. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The abstract of the disclosure is objected to because the abstract contains legal phraseology often used in patent claims, such as "said" in line 9, and phrases, which can be implied, such as, "The present invention relates to" in line 1. Correction is required. See MPEP § 608.01(b).

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Claim Objections

4. Claims 1 and 10 are objected to because of the following informalities: In claim 1, line 8, replace "k' an integer" with -- k' is an integer-- to correct minor grammatical error.

In claim 10, lines 2-3, replace "wherein it comprises" with --wherein the first antenna of slot type comprises-- or correct it appropriately to clearly identify that "it" is referring to "the first antenna of slot type". Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 2, 4, 9 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Desclos et al. (US 6,160,512).

Re claim 1, Desclos discloses device for receiving and/or transmitting electromagnetic waves with radiation diversity, comprising, on a common substrate,

at least a first antenna of slot type (i.e., patch antenna with slot 13), the slot being in the form of a closed curve of perimeter equal to $k'\lambda_s$ where λ_s is the wavelength in the slot at the operating frequency and k' is an integer, the first antenna being electromagnetically coupled to a first supply line, and a second antenna radiating in a direction parallel to the substrate, the second antenna being positioned inside the curve forming the first antenna and being connected to a second supply line, the first and second supply lines being connected via a switching means to

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means for exploiting the electromagnetic waves (Figs. 3, 4; Col. 1, line 64- Col. 3, line 28; Col. 4, lines 6-23).

Re claims 2 and 4, Desclos further discloses the first supply line is implemented in microstrip technology or in coplanar technology and the second supply line is implemented in microstrip technology or by a coaxial line (Col. 2, lines 5-55).

Re claims 8 and 10, Desclos further discloses the first antenna of slot type is formed by an annular slot or a slot of polygonal shape such as a square or rectangle and the first antenna of slot type comprises several antennas of slot type interlocking one with another (Figs. 3, 4; Col. 2, lines 25-43)

Re claims 9 and 11, Desclos further discloses the second antenna radiating parallel to the substrate is formed by a monopole or a helix operating in transverse mode and wherein the second antenna radiating parallel to the substrate is positioned at the center of the antenna or antennas of slot type (Figs. 3, 4; Col. 2, lines 25-43).

Allowable Subject Matter

7. Claims 3 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Claims 6, 7 and 12, are objected to as being dependent over objected claim 5.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kot et al. (US 5,714,961); Hall et al. (US 5,402,132); Izadian (US 5,300,936); and Harada (US 5,124,714); also teach similar inventive subject matter.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ephrem Alemu whose telephone number is (571) 272-1818. The examiner can normally be reached on M-F Flex hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don K Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EA
10-01-05


TUYET VO
PRIMARY EXAMINER